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10/661,320	09/12/2003	Hiroshi Ishihara	2271/71058	9311

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EXAMINER

DEBROW, JAMES J

ART UNIT	PAPER NUMBER
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2176

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07/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/661,320	Applicant(s) ISHIHARA, HIROSHI	
	Examiner JAMES J. DEBROW	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69, 71 and 72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-69, 71 and 72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>21 Apr. 2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to action: Amendment filed 25 Mar. 2008.

Claims 1-69, 71 and 72 are pending in this case. Claims 1, 23, 46, and 58 are independent claims.

Applicant's Response

In Applicant's response dated 25 Mar. 2008, applicant amended claims 1, 23, 46 and 58; added new claim 72; argued against rejections previously set forth in previous Office Action.

Information Disclosure Statement

The information disclosure statement filed **12 Sep. 2003** fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant failed to provide a legible English translation of document JP 2956390.

Applicant submits a computer printout of a copy of Japanese Parent No. 2956390 (including abstract) downloaded from the PAIR database file wrapper for this application is attached hereto as "Exhibit A".

However Examiner finds "Exhibit A" to be a copy of Japanese Parent No. 06-150012, which was twice submitted on 12 Sep. 2003.

Applicant submits that *"the Examiner is invited to compare the alleged two copies of JP06-150012 submitted on September 12, 2003. Applicant submits that it will be self-evident (from the second and subsequent pages thereof) that one of the two copies is a copy of reference JP'2956390, and that based on a comparison of the drawings of JP06--150012 and JP2956390 that the references are substantially similar."*

The Examiner does not find a submission of neither English or a foreign language translation of document JP 2956390. The examiner further disclose 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document;

The information disclosure statement filed **21 Apr. 2008** fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document, and each non-patent literature publication or that portion which caused it to be listed. It has been placed in the application file, but the foreign patents and the non-patent literature therein have not been considered.

The listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. 37 CFR 1.98(a)(2) requires a legible copy of: (1) each foreign patent; (2) each publication or that portion which caused it to be listed; (3) for each cited pending U.S. application, the application specification including claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion, unless the cited pending U.S. application is stored in the Image File Wrapper (IFW)

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system; and (4) all other information, or that portion which caused it to be listed. In addition, each IDS must include a list of all patents, publications, applications, or other information submitted for consideration by the Office (see 37 CFR 1.98(a)(1) and (b)), and MPEP § 609.04(a), subsection I. states, "the list ... must be submitted on a separate paper." Therefore, the references cited in the Search Report have not been considered. Applicant is advised that the date of submission of any item of information or any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the IDS, including all "statement" requirements of 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 17-22, 46-49, 55-61 and 67-69 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimasa et al. (Patent No.: 6,456,298 B1; Filed: Aug. 13, 1999) (hereinafter “Kunimasa”), in view of Crosby et al. (Pub. No.: US 2005/0052469 A1; Effective Filed Date: Nov. 28, 2000) (hereinafter ‘Crosby’).

In regard to independent claim 1, Kunimasa discloses *an information processing apparatus comprising:*

a drawing omission determination unit that determines whether drawing process corresponding to a graphical drawing instruction, out of a plurality of graphical drawing instructions, can or cannot be omitted based on a drawing attribute of a pattern corresponding to the graphical drawing instruction (col. 5, lines 14-34; Kunimasa discloses the drawing logical arithmetic process determination unit analyzes the drawing arithmetic process instruction and determines whether the instruction or a plurality of continuous drawing instructions has the content which may be processed without any logical arithmetic process or not. The Examiner relates this teaching to the current invention that the drawing instructions are analyzed to determine if they should be process further or not; col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa

further discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point);

an output unit that outputs to an information processing apparatus the other graphical drawing instructions to get an image corresponding to the other graphical drawing instructions printed (col. 6, lines 20-35; 2 in Fig. 21; Kunimasa discloses the interpreter unit which recognizes the drawing information received by the printer to interpret a command by forming command and argument. Based on the instructions of the interpreter unit, the imager unit draws the image.).

Kunimasa does not disclose expressly *a selection unit that makes the graphical drawing instruction invalid if the drawing omission determination unit determines that the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted, and makes other graphical drawing instructions valid.*

wherein the graphical drawing instruction is made invalid, the drawing process corresponding to the graphical drawing instruction is not performed.

However, Crosby teaches *a selection unit that makes the graphical drawing instruction invalid if the drawing omission determination unit determines that the drawing*

process corresponding to the graphical drawing instruction to be made invalid can be omitted, and makes other graphical drawing instructions valid (0032; 0069; 0078;

Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed. Crosby is analogous with the current invention for in at least the reason given above.).

wherein the graphical drawing instruction is made invalid, the drawing process corresponding to the graphical drawing instruction is not performed (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest

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reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed. Crosby is analogous with the current invention for in at least the reason given above.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 2, Kunimasa discloses *the information processing apparatus according to claim 1, wherein the graphical drawing instruction is described in a page description language that includes a basic graphical drawing instruction which specifies a pattern to be drawn, and a drawing attribute instruction which specifies the drawing attribute* (col. 13, lines 49-63; Kunimasa discloses the drawing instruction, including set attribute instructions, are presented in a page description language (PDL).) .

In regard to dependent claim 3, Kunimasa discloses *the information processing apparatus according to claim 1, wherein the drawing attribute includes information about a color of a pattern concerning the graphical drawing instruction and a method for performing the drawing process* (col. 13, lines 49-67; col. 14, lines 4-9; col. 14, lines 22-36; Kunimasa discloses how the drawing instruction include attribute information concerning the color pattern of the image.).

In regard to dependent claim 4, Kunimasa does not expressly disclose *the information processing apparatus according to claim 3, wherein the drawing omission determination unit determines that the drawing process can be omitted when the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read

data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed, wherein the user will see a version of the output image even though it has not been re-processed, Thus the *drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging/selection unit as described within the claimed invention.

In regard to dependent claim 5, Kunimasa does not expressly disclose *the information processing apparatus according to claim 4, wherein the drawing omission determination unit determines that the drawing process can be omitted when it is determined from the drawing attribute of a pattern concerning the graphical drawing instruction and a method for performing the drawing process that the contents of a memory at a drawing destination are not changed before and after the drawing process regardless of the contents of the memory.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when it is determined from the drawing attribute of a pattern concerning the graphical drawing instruction and a method for performing the drawing process that the contents of a memory at a drawing destination are not changed before and after the drawing process regardless of the contents of the memory*(0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed, wherein the user will see a version of the output image even though it has not been re-processed, Thus the *drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging/selection unit as described within the claimed invention.

In regard to dependent claim 6, Kunimasa discloses *the information processing apparatus according to claim 5, wherein the method is a logical sum (OR) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical sum (OR). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not expressly disclose *the drawing omission determination unit determines that the drawing process can be omitted when the color density is the lowest*.

However, Crosby teaches *the drawing determination unit determines that the drawing process can be omitted when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *the drawing process can be omitted when the color density is the lowest*.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 7, Kunimasa does not expressly disclose *the information processing apparatus according to claim 1, wherein the drawing omission determination unit determines that the drawing process can be omitted when a memory at a drawing destination is in an initialized state.*

However, Crosby teaches *the drawing determination unit determines that the drawing process can be omitted when the color density is the lowest (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when a memory at a drawing destination is in an initialized state.)*.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 8, Kunimasa does not disclose expressly *the information processing apparatus according to claim 1, further comprising an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag.*

However, Crosby teaches *an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 9, Kunimasa discloses *the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process when the memory is in an initialized state even when the drawing process is carried out* (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. A second image pattern along with its drawing instruction is compared to a first image pattern along with its drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point.).

Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the

Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 10, Kunimasa discloses *the information processing apparatus according to claim 8, when the color density is the lowest and also when a method for performing the drawing process is a replacement (SET) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 15, lines 56-65; col. 18, lines 3-11; Kunimasa discloses over-writing (*replacement (SET)*) the image when the color value is zero (*color density is the lowest*). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 11, Kunimasa discloses *the information processing apparatus according to claim 8, a method for performing the drawing process is a logical sum (OR) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical sum (OR). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 12, Kunimasa discloses *the information processing apparatus according to claim 8, a method for performing the drawing*

process is an exclusive logical sum (XOR) among the drawing attributes of a pattern concerning the graphical drawing instruction (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as exclusive logical sum (XOR). Kinimasa further discloses the color value (density) of an image can be zero.).

Kunimasa does not disclose expressly the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest

However, Crosby teaches wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 13, Kunimasa discloses *the information processing apparatus according to claim 8, a method of the drawing process is a logical product (AND) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical product (AND). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor

outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 17, Kunimasa does not expressly disclose *the information processing apparatus according to claim 1, wherein when the graphical drawing instruction concerns a pattern of a color, the drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color.*

However, Crosby teaches *when the graphical drawing instruction concerns a pattern of a color, the drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest

reasonable interpretation, the Examiner concludes Crosby's judging unit could be modified to *incorporate a drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color. Thus the read data format could include but not be limited to each color plane of the color.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 18, Kunimasa does not expressly disclose *the information processing apparatus according to claim 1, wherein the drawing omission determination unit determines whether the drawing process can be omitted only when a pattern concerning the graphical drawing instruction is a graphic pattern.*

However, Crosby teaches *wherein the drawing omission determination unit determines whether the drawing process can be omitted only when a pattern concerning the graphical drawing instruction is a graphic pattern* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to drawing process can be omitted only when a pattern concerning the graphical drawing instruction is a graphic pattern.)).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 19, Kunimasa discloses the drawing logical arithmetic process determination unit analyzes the drawing arithmetic process instruction and determines whether the instruction or a plurality of continuous drawing instructions has the content which may be processed without any logical arithmetic process or not. The Examiner relates this teaching to the current invention that the drawing instructions are analyzed to determine if they should be process further or not (col. 5, lines 14-34);

Kunimasa does not disclose expressly *the information processing apparatus according to claim 1, wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit detects continuous pixels of the same color within the image pattern, and determines whether the drawing process can be omitted for each portion of continuous pixels.*

However, Crosby teaches *wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit detects continuous pixels of the same color within the image pattern, and determines whether the drawing process can be omitted for each portion of continuous pixels* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image

processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited the drawing process can be omitted for each portion of continuous pixels.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claims 20, 57 and 69, Kunimasa does not disclose expressly *when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit determines whether the drawing process can be omitted of the image pattern in a word length unit.*

However, Crosby teaches *when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit determines whether the drawing process can be omitted of the image pattern in a word length unit* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited the drawing process can be omitted of the image pattern in a word length unit.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 21, Kunimasa discloses *the information processing apparatus according to claim 1, wherein the output unit outputs the other graphical drawing instructions to the image formation apparatus one-by-one* (col. 11, line 59-64).

In regard to dependent claim 22, Kunimasa discloses *the information processing apparatus according to claim 1, further comprising a drawing data memory that stores the other graphical drawing instructions, wherein the output unit outputs the other graphical drawing instructions stored in the drawing data memory to the image formation apparatus altogether* (col. 4, line 30-40; col. 11, line 18-30; 2 & 3 in Fig. 1; Kunimasa discloses how drawing instructions are stored in the drawing object memory unit.).

In regard to independent claims 46 and 58, Kunimasa disclose *a machine-implemented drawing processing method comprising:*

determining whether drawing process corresponding to a plurality of graphical drawing instructions, from a plurality of graphical instruction, can or cannot be omitted based on an image formation apparatus, based on a drawing attribute of a pattern

corresponding to the graphical drawing instruction (col. 5, lines 14-34; Kunimasa discloses the drawing logical arithmetic process determination unit analyzes the drawing arithmetic process instruction and determines whether the instruction or a plurality of continuous drawing instructions has the content which may be processed without any logical arithmetic process or not. The Examiner relates this teaching to the current invention that the drawing instructions are analyzed to determine if they should be process further or not; col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa further discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point);

Kunimasa does not disclose expressly *making other graphical drawing instruction valid and the graphical drawing instruction invalid and generating a graphical drawing output by said image forming apparatus by executing said valid other graphical drawing instructions and not executing said invalid graphical drawing instruction made invalid, to reduce a number of operations performed by said image formation apparatus, if it is determined in (a) that the determining that the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted by the image formation apparatus.*

However, Crosby teaches *making other graphical drawing instruction valid and the graphical drawing instruction invalid and generating a graphical drawing output by said image forming apparatus by executing said valid other graphical drawing instructions and not executing said invalid graphical drawing instruction made invalid, to reduce a number of operations performed by said image formation apparatus, if it is determined in (a) that the determining that the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted by the image formation apparatus* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the

Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to invalid graphical drawing instruction made invalid, to reduce a number of operations performed by said image formation apparatus. Crosby is analogous with the current invention for in at least the reason given above.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/ selection unit as described within the claimed invention

In regard to dependent claims 47 and 59, Kunimasa discloses *the drawing processing, wherein the determining includes determining that the drawing process can be omitted when the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory* (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. A second image pattern along with its drawing instruction is compared to a first image pattern along with its drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point.).

In regard to dependent claims 48 and 60, Kunimasa discloses *the drawing processing wherein a method for performing the drawing process that the contents of a*

memory at a drawing destination are not changed before and after the drawing process regardless of the contents of the memory (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point.).

Kunimasa does not expressly disclose *wherein the determining includes determining that the drawing process can be omitted when it is determined from the drawing attribute of a pattern concerning the graphical drawing instruction.*

However, Crosby teaches *wherein the determining includes determining that the drawing process can be omitted when it is determined from the drawing attribute of a pattern concerning the graphical drawing instruction* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing attribute of a pattern concerning the graphical drawing instruction.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claims 49 and 61, Kunimasa discloses *the drawing processing method, wherein the determining includes determining that the drawing process can be omitted when a memory at a drawing destination is in an initialized state* (col. 15, lines 1-38).

In regard to dependent claims 55 and 67, Kunimasa does not expressly disclose *the drawing processing method, wherein the graphical drawing instruction concerns a pattern of a color, and the determining includes determining whether the drawing process can be omitted for each color plane of the color.*

However, Crosby teaches *when the graphical drawing instruction concerns a pattern of a color, the drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing process can be omitted for each color plane of the color.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claims 56 and 68, Kunimasa does not expressly disclose *the drawing processing method, wherein the graphical drawing instruction corresponds to an image pattern, and the determining includes detecting continuous pixels of the same color within the image pattern, and determining whether the drawing process can be omitted for each portion of continuous pixels.*

However, Crosby teaches *wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit detects continuous pixels of the same color within the image pattern, and determines whether the drawing process can be omitted for each portion of continuous pixels* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing process can be omitted for each portion of continuous pixels.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 71, Kunimasa does not expressly disclose *the information processing apparatus according to claim 1, wherein the drawing omission determination unit makes determination whether the drawing process corresponding to the graphical drawing instruction can be omitted, before the drawing process is performed.*

However, Crosby teaches *wherein the drawing omission determination unit makes determination whether the drawing process corresponding to the graphical drawing instruction can be omitted, before the drawing process is performed* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed. Crosby is analogous with the current invention for in at least the reason given above.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

NOTE

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See MPEP 2123.

Claims 23-35, 39-45 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimasa in view of Crosby, further in view of Nagao et al. (Patent No.: 6,100,998; Date of Patent: Aug. 8, 2000) (hereinafter “Nagao”).

In regard to independent claim 23, Kunimasa discloses *an image formation apparatus comprising:*

a page memory (col. 5, line 54; 24 in Fig 2.; Kunimasa discloses an image forming system which include a page memory);

a drawing omission determination unit that determines whether drawing process corresponding to a graphical drawing instruction, out of a plurality of graphical drawing

instructions, can or cannot be omitted based on a drawing attribute of a pattern corresponding to the graphical drawing instruction (col. 5, lines 14-34; Kunimasa discloses the drawing logical arithmetic process determination unit analyzes the drawing arithmetic process instruction and determines whether the instruction or a plurality of continuous drawing instructions has the content which may be processed without any logical arithmetic process or not. The Examiner relates this teaching to the current invention that the drawing instructions are analyzed to determine if they should be process further or not; col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa further discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point);

a drawing unit that performs the drawing process to draws an image onto the page memory based on the other graphical drawing instructions (col. 6, lines 20-45; Kunimasa discloses an image unit that draws an image depending on the instructions of the interpreter unit. The images are then stored in a page memory.).

Kunimasa does not expressly disclose *a selection unit that makes the graphical drawing instruction invalid if the drawing omission determination unit determines that*

the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted, and makes other graphical drawing instructions valid;

an image formation unit that forms an image onto a recording medium paper based on the image on the page memory.

wherein the graphical drawing instruction is made invalid, the drawing process corresponding to the graphical drawing instruction is not performed.

Crosby teaches a selection unit that makes the graphical drawing instruction invalid if the drawing omission determination unit determines that the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted, and makes other graphical drawing instructions valid (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not

performed. Crosby is analogous with the current invention for in at least the reason given above.).

wherein the graphical drawing instruction is made invalid, the drawing process corresponding to the graphical drawing instruction is not performed (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed. Crosby is analogous with the current invention for in at least the reason given above.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

Nagao teaches *an image formation unit that forms an image onto a recording medium paper based on the image on the page memory* (col. 8, lines 9-16; Nagao teaches the output unit receives print data and prints the received data onto *recording paper.*).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa and Crosby with Nagao for the benefit of not executing unnecessary drawing instruction so that high speed and high quality drawing process may be enabled (col.3, lines 32-34).

In regard to dependent claim 24, Kunimasa discloses *the image formation apparatus according to claim 23, wherein the graphical drawing instruction is described in a page description language that includes a basic graphical drawing instruction which specifies a pattern to be drawn, and a drawing attribute instruction which specifies the drawing attribute* (col. 13, lines 49-60; Fig. 10; Kunimasa discloses the drawing instruction are sent by the drawing instruction group called PDL (*page description language*)).

In regard to dependent claim 25, Kunimasa discloses *the image formation apparatus according to claim 23, wherein the drawing attribute includes information about a color of a pattern concerning the graphical drawing instruction and a method for performing the drawing process* (col. 13, lines 49-67 & col. 14, lines 1-52).

In regard to dependent claim 26, Kunimasa does not expressly disclose *the image formation apparatus according to claim 25, wherein the drawing omission determination unit determines that the drawing process can be omitted when the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction.

The invalid instruction is omitted, not performed, wherein the user will see a version of the output image even though it has not been re-processed, Thus the *drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging/selection unit as described within the claimed invention.

In regard to dependent claim 27, Kunimasa does not expressly disclose *the image formation apparatus according to claim 26, a method for performing the drawing process that the contents of a memory at a drawing destination are not changed before and after the drawing process regardless of the contents of the memory.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when it is determined from the drawing attribute of a pattern concerning the graphical drawing instruction and a method for performing the drawing process that the contents of a memory at a drawing destination are not changed before and after the drawing process regardless of the contents of the memory*(0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is

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suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit which judges whether or not the instructed editing operation is suitable for each of the plurality of items of image data is analogous with the current invention's determination unit determines that the drawing process can be omitted, and makes other graphical drawing instructions valid because both units determines if a drawing/editing instruction is valid or invalid and afterward executes the valid instruction. The invalid instruction is omitted, not performed, wherein the user will see a version of the output image even though it has not been re-processed, Thus the *drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process regardless of the contents of the memory.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging/selection unit as described within the claimed invention.

In regard to dependent claim 28, Kunimasa discloses *the image formation apparatus according to claim 27, wherein the method is a logical sum (OR) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical sum (OR). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not expressly disclose *the drawing omission determination unit determines that the drawing process can be omitted when the color density is the lowest.*

However, Crosby teaches *the drawing determination unit determines that the drawing process can be omitted when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *the drawing process can be omitted when the color density is the lowest.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 29, Kunimasa does not expressly disclose *the image formation apparatus according to claim 23, wherein the drawing omission determination unit determines that the drawing process can be omitted when a memory at a drawing destination is in an initialized state.*

However, Crosby teaches *the drawing determination unit determines that the drawing process can be omitted when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor

cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *the drawing omission determination unit determines that the drawing process can be omitted when a memory at a drawing destination is in an initialized state.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 30, Kunimasa does not disclose expressly *the image formation apparatus according to claim 23, further comprising an output status flag for each graphical drawing instruction, wherein the selection unit sets an output status flag corresponding a certain graphical drawing instruction to set that graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag.*

However, Crosby teaches *an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process

the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 31, Kunimasa discloses *the image formation apparatus according to claim 30, wherein the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process when the memory is in an initialized state even when the drawing process is carried out* (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point.).

Kunimasa does not disclose expressly *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag is not set.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag is not set* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing process can be omitted when the output status flag is not set.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 32, Kunimasa discloses *the image formation apparatus according to claim 30, when the color density is the lowest and also when a method for performing the drawing process is a replacement (SET) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 15, lines 56-65; col. 18, lines 3-11; Kunimasa discloses over-writing (*replacement (SET)*) the image when the color value is zero (*color density is the lowest*). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 33, Kunimasa discloses *the image formation apparatus according to claim 30, when the color density is the lowest and also when a*

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method for performing the drawing process is a logical sum (OR) among the drawing attributes of a pattern concerning the graphical drawing instruction (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical sum (OR). Kinimasa further discloses the color value (density) of an image can be zero.).

Kunimasa does not disclose expressly the image formation apparatus according to claim 30, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag is not set, when the color density is the lowest.

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 34, Kunimasa discloses *the image formation apparatus according to claim 30, wherein the color density is the lowest, and when a method for performing the drawing process is an exclusive logical sum (XOR) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as exclusive logical sum (XOR). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly the *image formation apparatus according to claim 30, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag is not set, when the color density is the lowest.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for

whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid, when the color density is the lowest.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 35, Kunimasa discloses *the image formation apparatus according to claim 30, wherein the modification method is a logical product (AND) among the drawing attributes of a pattern concerning the graphical drawing instruction* (col. 7, lines 37-45; col. 13, lines 4-6; Kunimasa discloses a user can designate the logical arithmetic process to the bit map data between images, such as logical product (AND). Kinimasa further discloses the color value (*density*) of an image can be zero.).

Kunimasa does not disclose expressly teaches the *apparatus according to claim 30, wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag is not set.*

However, Crosby teaches *wherein the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines that the drawing process can be omitted when the output status flag indicates that the graphical drawing instruction is not yet set valid.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 39, Kunimasa does not expressly disclose *the image formation apparatus according to claim 23, wherein the graphical drawing instruction concerns a pattern of a color, and the drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color.*

However, Crosby teaches *when the graphical drawing instruction concerns a pattern of a color, the drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color* (0032; 0069; 0078;

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Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Thus Crosby teaches a judging unit to judge whether or not the instructed editing operation is suitable for each of the plurality of items of image data based on the respective read data-formats. Using the broadest reasonable interpretation, the Examiner concludes Crosby's judging unit could be modified to *incorporate a drawing omission determination unit determines whether the drawing process can be omitted for each color plane of the color. Thus the read data format could include but not be limited to each color plane of the color.*

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 40, Kunimasa does not expressly disclose *the image formation apparatus according to claim 23, wherein the drawing omission determination unit determines whether the drawing process can be omitted when the graphical drawing instruction corresponds to a graphic pattern.*

However, Crosby teaches *wherein the drawing omission determination unit determines whether the drawing process can be omitted only when a pattern concerning the graphical drawing instruction is a graphic pattern* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor

outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to drawing process can be omitted only when a pattern concerning the graphical drawing instruction is a graphic pattern.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 41, Kunimasa discloses the drawing logical arithmetic process determination unit analyzes the drawing arithmetic process instruction and determines whether the instruction or a plurality of continuous drawing instructions has the content which may be processed without any logical arithmetic process or not. The Examiner relates this teaching to the current invention that the drawing instructions are analyzed to determine if they should be process further or not (col. 5, lines 14-34);

Kunimasa does not disclose expressly *the image formation apparatus according to claim 23, wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit detects continuous pixels of the same color within the image pattern, and determines whether the drawing process can be omitted for each portion of continuous pixels.*

However, Crosby teaches *wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit detects*

continuous pixels of the same color within the image pattern, and determines whether the drawing process can be omitted for each portion of continuous pixels (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited the drawing process can be omitted for each portion of continuous pixels.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claim 42, Kunimasa does not disclose expressly *the image formation apparatus according to claim 23, wherein when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit determines whether the drawing process can be omitted of the image pattern in a word length unit.*

However, Crosby teaches *when a pattern concerning the graphical drawing instruction is an image pattern, the drawing omission determination unit determines whether the drawing process can be omitted of the image pattern in a word length unit (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the*

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image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited the drawing process can be omitted of the image pattern in a word length unit.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/ selection unit as described within the claimed invention.

In regard to dependent claim 43, Kunimasa discloses *the image formation apparatus according to claim 23, wherein the output unit outputs the other graphical drawing instructions to the image formation apparatus one-by-one* (col. 11, line 59-64).

In regard to dependent claim 44, Kunimasa discloses *the image formation apparatus according to claim 23, further comprising a drawing data memory that stores the other graphical drawing instructions, wherein the output unit outputs the other graphical drawing instructions stored in the drawing data memory to the image formation apparatus altogether* (col. 4, line 30-40; col. 11, line 18-30; 2 & 3 in Fig. 1; Kunimasa discloses drawing instructions are store in the drawing object memory unit.).

In regard to dependent claim 45, Kunimasa discloses *the image formation apparatus according to claim 24, further comprising:*

a receiving unit that receives the drawing instructions from an external source
(col.5, line 52; 18 in Fig 2.);

and an interpreter that converts the drawing instructions into the graphical drawing instructions of a format which is suitable for the drawing process (col. 6, lines 20-35; 2 in Fig. 21; Kunimasa discloses the interpreter unit which recognizes the drawing information received by the printer to interpret a command by forming command and argument. Based on the instructions of the interpreter unit, the imager unit draws the image).

In regard to dependent claim 72, Kunimasa discloses *the information processing apparatus according to claim 1, wherein said selection unit makes one or more of the other graphical drawing instructions valid if the determination unit determines that the drawing processes of said one or more of the other graphical drawing instructions cannot be omitted, said image is obtained based on the valid one or more of the other graphical drawing instructions which are executed* (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output. Thus the system determines that instruction is invalid and is omitted).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art.

See MPEP 2123.

Claims 14, 50-52 and 62-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimasa in view of Crosby and further in view of Kato (Pub. No.: US 2002/0132665 A1; Effective Filing Date: Mar. 19, 2001) (hereinafter 'Kato').

In regard to dependent claim 14, Kunimasa in view of Crosby does not disclose *expressly the information processing apparatus according to claim 8, wherein the output status flag indicates whether the selection unit has already set a certain graphical drawing instruction valid for each graphical drawing instruction concerning an image for one page.*

However, Kato teaches *wherein the output status flag indicates whether the selection unit has already set a certain graphical drawing instruction valid for each graphical drawing instruction concerning an image for one page* (0009, claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest interpretation, the

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Examiner concludes the output from the controller to include but not limited to an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid for each graphical drawing instruction concerning an image for one page.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa in view of Crosby with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

In regard to dependent claims 50 and 62, Kunimasa in view of Crosby does not disclose expressly *the drawing processing method wherein the determining includes determining whether the drawing process can be omitted based on a state of an output status flag that is set when a certain graphical drawing instruction is made valid.*

However, Kato teaches *an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid, wherein the drawing omission determination unit determines whether the drawing process can be omitted based on the state of the output status flag* (0009; 0011; claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest interpretation, the Examiner concludes the output from the controller to include but not limited to an output

status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa in view of Crosby with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

In regard to dependent claims 51 and 63, Kunimasa discloses *the drawing processing method wherein the drawing attribute of a pattern concerning the graphical drawing instruction does not change the contents of a memory at a drawing destination before and after the drawing process when the memory is in an initialized state even when the drawing process is carried out* (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7; Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. An second image pattern along with it's drawing instruction is compared to a first image pattern along with it's drawing instruction, which is stored in drawing object memory unit. If the drawing information is determined to be identical, the second drawing information is not output and the process for the second drawing information is completed at this point.).

Kunimasa does not disclose expressly *the drawing processing method according to claim 51, wherein the determining includes determining that the drawing process can be omitted when the output status flag is not set.*

However, Crosby teaches *the drawing processing method according to claim 51, wherein the determining includes determining that the drawing process can be omitted when the output status flag is not set* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to *the drawing process can be omitted when the output status flag is not set.*).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

In regard to dependent claims 52 and 64, Kunimasa in view of Crosby does not disclose expressly *the drawing processing method, wherein the output status flag indicates whether a certain graphical drawing instruction has been made valid for each graphical drawing instruction concerning an image for one page.*

However, Kato teaches *wherein the output status flag indicates whether a certain graphical drawing instruction has been made valid for each graphical drawing instruction concerning an image for one page* (0009; 0011; claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit

renders a drawing instruction valid or invalid. Using the broadest interpretation, the Examiner concludes the output from the controller to include but not limited to the output status flag indicates that the graphical drawing instruction is not yet set valid.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa in view of Crosby with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

NOTE

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See MPEP 2123.

Claims 15, 16, 53, 54, 65 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimasa and Crosby in view of Kato and further n view of Nagao.

In regard to dependent claim 15, Kunimasa does not disclose expressly *the information processing apparatus according to claim 8, wherein one page is divided into specific number of determination regions, and the output status flag is provided for each determination region, and the drawing omission determination unit determines*

whether the drawing can be omitted based on the status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.

However, Crosby teaches *drawing omission determination unit determines whether the drawing can be omitted based on the status of the output status flag* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines whether the drawing can be omitted based on the status of the output status flag for each determination region.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

Kato teaches *the output status flag is provided for each determination region, to which a drawing region concerning the graphical drawing instruction belongs* (0009, claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest

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interpretation, the Examiner concludes the output from the controller to include but not limited to a status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa and Crosby with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

Nagao teaches *the information processing apparatus according to claim 8, wherein one page is divided into specific number of determination regions* (col. 5, lines 61-64; Nagao teaches a single page may be constituted by a plurality of regions.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Kato with Nagao for the benefit of not executing unnecessary drawing instruction so that high speed and high quality drawing process may be enabled (col. 3, lines 32-34).

In regard to dependent claim 16, Kunimasa, Crosby and Kato does not disclose expressly *the information processing apparatus according to claim 15, wherein the determination regions are decided based on bands*.

However, Nagao teaches *the information processing apparatus according to claim 15, wherein the determination regions are decided based on bands* (col. 1, lines 53-54; col. 5, lines 61-64).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Kato with Nagao for the benefit of reducing massive memory requirements, thus lowering the cost of memory accordingly (col.1, lines 44-47).

In regard to dependent claims 53 and 65, Kunimasa does not disclose expressly *the drawing processing method further comprising dividing one page into a desired number of determination regions, wherein the output status flag is provided in each determination region, and*

the determining includes determining whether the drawing can be omitted based on the status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.

However, Crosby teaches *drawing omission determination unit determines whether the drawing can be omitted based on the status of the output status flag* (0032; 0069; 0078; Crosby teaches batch editing operations to one or more images. If the image processor cannot process the editing commands for whatever reason, the image processor outputs the original (unedited) image. Using the broadest reasonable interpretation, the Examiner concludes the reason the processor cannot process the editing commands could include but not be limited to the drawing omission determination unit determines whether the drawing can be omitted based on the status of the output status flag for each determination region.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Kunimasa with Crosby for the benefit of providing a judging unit/selection unit as described within the claimed invention.

Kato teaches *the output status flag is provided for each determination region, a for each determination region to which a drawing region concerning the graphical drawing instruction belongs* (0009, claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest interpretation, the Examiner concludes the output from the controller to include but not limited to a status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa and Crosby with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

Nagao teaches *wherein one page is divided into specific number of determination regions* (col. 5, lines 61-64; Nagao teaches a single page may be constituted by a plurality of regions.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Kato with Nagao for the benefit of not executing unnecessary drawing instruction so that high speed and high quality drawing process may be enabled (col. 3, lines 32-34).

In regard to dependent claims 54 and 66, Kunimasa, Crosby and Kato does not disclose expressly *the image formation apparatus according to claim 37, wherein the dividing unit divides the one page into the determination regions based on bands.*

However, Nagao teaches *the image formation apparatus according to claim 37, wherein the dividing unit divides the one page into the determination regions based on bands* (col. 1, lines 53-54; col. 5, lines 61-64).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Kato with Nagao for the benefit of reducing massive memory requirements, thus lowering the cost of memory accordingly (col.1, lines 44-47).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See MPEP 2123.

Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunimasa and Crosby in view of Nagao and further n view of Kato.

In regard to dependent claim 36, Kunimasa and Crosby in view of Nagao, does not disclose expressly *the image formation apparatus according to claim 30, wherein the output status flag indicates whether a certain graphical drawing instruction has been made valid for each graphical drawing instruction concerning an image for one page.*

However, Kato teaches *wherein the output status flag indicates whether the selection unit has already set a certain graphical drawing instruction valid for each graphical drawing instruction concerning an image for one page* (0009, claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest interpretation, the Examiner concludes the output from the controller to include but not limited to an output status flag that indicates whether the selection unit has already set a certain graphical drawing instruction valid for each graphical drawing instruction concerning an image for one page.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Nagao with Kato for the benefit of providing an image processing apparatus, which allows user to select a

mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

In regard to dependent claim 37, Kunimasa in view of Crosby does not disclose expressly *the drawing processing method further comprising dividing one page into a desired number of determination regions, wherein the output status flag is provided in each determination region, and*

the determining includes determining whether the drawing can be omitted based on the status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.

Nagao teaches, *wherein one page is divided into specific number of determination regions* (col. 5, lines 61-64; Nagao teaches a single page may be constituted by a plurality of regions.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa in view of Crosby with Nagao for the benefit of not executing unnecessary drawing instruction so that high speed and high quality drawing process may be enabled (col. 3, lines 32-34).

Kato teaches *the output status flag is provided for each determination region, and the drawing omission determination unit determines whether the drawing can be omitted based on the status of the output status flag for each determination region to*

which a drawing region concerning the graphical drawing instruction belongs (0009, claim 14; claim 28; Kato teaches a determination unit that decides whether or not to executes a drawing operation. According to an instruction output from the controller, the determination unit renders a drawing instruction valid or invalid. Using the broadest interpretation, the Examiner concludes the output from the controller to include but not limited to a status of the output status flag for each determination region to which a drawing region concerning the graphical drawing instruction belongs.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa, Crosby and Nagao with Kato for the benefit of providing an image processing apparatus, which allows user to select a mode for executing a drawing operation or a mode for not executing a drawing operation (0118).

In regard to dependent claim 38, Kunimasa in view of Crosby does not disclose expressly *the image formation apparatus according to claim 37, wherein the dividing unit divides the one page into the determination regions based on bands.*

However, Nagao teaches *the image formation apparatus according to claim 37, wherein the dividing unit divides the one page into the determination regions based on bands* (col. 1, lines 53-54; col. 5, lines 61-64).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Kunimasa with Nagao for the benefit of reducing

massive memory requirements, thus lowering the cost of memory accordingly (col.1, lines 44-47).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See MPEP 2123.

Response to Arguments

Applicant's arguments, see Remarks, filed 25 Mar. 2008, have been fully considered but they are not persuasive.

Applicant argues Kunimasa does not teach or suggest *omission of drawing process corresponding to a graphical drawing instruction, or determining whether the drawing process corresponding to the graphical drawing instruction can or cannot be omitted, based on a drawing attribute of a pattern corresponding to the graphical drawing instruction.*

The Examiner disagrees.

As previously cited, Kunimasa discloses a process in which drawing instructions are analyzed to determine if they are identical or not. A second image pattern along with its drawing instruction is compared to a first image pattern along with its drawing instruction, which is stored in drawing object memory unit. If the drawing information is

determined to be identical, the second drawing information is not output (col. 10, lines 42-67 & col. 11, lines 1-30; Fig. 7), thus the instruction is made invalid. Kunimasa teaches omission of drawing process corresponding to a graphical drawing instruction, or determining whether the drawing process corresponding to the graphical drawing instruction can or cannot be omitted, based on a drawing attribute of a pattern corresponding to the graphical drawing instruction. As describe in Applicant's specifications (page 13, lines 15-22) when a drawing instruction does not change the contents of the page memory before and after the drawing regardless of the contents of the page memory, the drawing omission determined section can determine that the drawing instruction can be omitted. Thus Applicant discloses omitting duplicate/identical instructions.

Applicant argues Crosby does not render obvious determining whether drawing process correspond hag to a graphical drawing instruction, out of a plurality of graphical drawing instructions can or can not be omitted based on a drawing attribute of a pattern corresponding to the graphical drawing instruction, and making a graphical drawing instruction invalid if it is determined that the drawing process corresponding to the graphical drawing instruction to be made invalid can be omitted; wherein the instruction made invalid is not performed.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Note

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See MPEP 2123.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James J. Debrow whose telephone number is 571-272-5768. The examiner can normally be reached on 8:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAMES DEBROW
EXAMINER
ART UNIT 2176

/Doug Hutton/
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